ADVERTISEMENT FOR BIDS

University of Washington
HSC B-Wing 305B Clinic Renovation; Project Number: 207299
207299 Date of Bid Opening: February 2, 2021
A/E’s estimate: $605,000

NOTICE TO CONTRACTORS:

**Bid Submittal:** The University of Washington is taking precautions to limit exposure and impacts related to COVID-19. To comply with the Governor’s “Safe Start” plan, the requirement to submit a sealed bid is waived. Bids, including bid bonds, will be received by the University of Washington, Project Delivery Group, by email at PDGbids@uw.edu.

The Bid Form will be received up to 3:00 p.m. on **February 3, 2021**. Bids will then be publicly opened and read aloud via Zoom, Version 5.0 required. The meeting will be held via link below: https://washington.zoom.us/j/94314173215. Bids received after the date and hour above stated will not receive consideration. Attendance in person is not allowed.

**Project Description:** The project includes the following work: Interior remodel of Suite B350, (total 2,237 sf) in the Magnuson Health Sciences Center, B-Wing on the Seattle Campus of the University of Washington. The scope of work includes but is not limited to hazardous material abatement, demolition, wall framing, ceiling, upgraded finishes, replacing and relocating doors, reconfiguration and replacement of existing lighting, ventilation, plumbing, power and fire sprinklers.

All construction operations must comply with the most current Covid 19 related rules and guidance from the Governor’s Office. All activities must also comply with all related and applicable requirements issued by the Washington State Department of Labor and Industries and Public Health Agencies having jurisdiction.

**Questions:** Questions about this project should be directed to:

A/E Name: Mithun
Contact Person: Evan Bourquard
Email: evanb@mithun.com
Phone Number: 206-971-5636

**Pre-Bid Site Meeting:** The Project site is available for inspection by prospective bidders at a pre-bid site meeting and walk-through at 10AM on January 19, 2021 at Magnuson Heath Science Building B Wing: Suite B 350: 1959 NE Pacific St, Seattle, WA 98195. See attached map for parking and meet up location.

**Bid Documents:** Bidders may obtain or access plans, specifications, and addenda for this project at https://facilities.uw.edu/projects/business-opportunities/solicitations. Contractors who would like to be included on the Planholder’s list shall either attend a pre-bid meeting or request to be added by emailing PDGbids@uw.edu.

**Bid Guarantee:** A surety company bid bond on a form acceptable to Owner, a cashier’s check or a certified check payable to the order of University of Washington, or cash, shall accompany each bid in an amount not less than five percent (5%) of the Base Bid. No bidder may withdraw its bid after the hour set for the opening thereof, unless the award of the contract is delayed for a period exceeding 60 days.

Template Last Revised July 5, 2020
BUSINESS EQUITY: The University of Washington is committed to providing optimal opportunity for participation in contracting by Business Equity Enterprises (BEE). The University of Washington defines a Business Equity Enterprise (BEE) as “any entity licensed to do business in the State of Washington, including a corporation, partnership, sole proprietorship, or other legal entity that meets any of the following:"


Lesbian/Gay/Bisexual/Transgender Business Enterprise (LGBTBE): More than 50% owned and controlled by at least one person who is a member of the LGBT community.

Minority Business Enterprise (MBE): More than 50% owned and controlled by at least one person who is a member of one or more of the following minority groups:

- Asian Pacific American
- Black American
- Hispanic American
- Native American
- Subcontinent Asian American

Minority Women’s Business Enterprise (MWBE): More than 50% owned and controlled by at least one woman who is a member of one or more of the above minority groups.

Small Business Enterprise (SBE): A business entity that:

- Can attest that it is owned and operated independently from all other businesses and
- Conforms to the U.S. Small Business Administration Size Standards of the North American Industry Classification System (NAICS) Codes in which it is to be engaged at the UW; or
- Is certified with the OMWBE.

Veteran’s Business Enterprise (VBE): Certified with the Washington State Department of Veteran’s Affairs (DVA)

Women’s Business Enterprise (WBE): More than 50% owned and controlled by one or more women. The University of Washington has determined that an overall aspirational goal of 20% Business Equity Enterprise (BEE) utilization, inclusive of 15% minority and women-owned business utilization, is practicable and attainable on this construction project; that goal is negotiable based upon the specialized nature of the work and the relative availability of BEE to perform the specific work scopes identified in this project. The University of Washington welcomes the participation of all BEE, irrespective of gross revenues, including those that are self-designated and those that are state (OMWBE) certified. Participation may be on a direct basis in response to this invitation to bid, or as a subcontractor or supplier.

Safety Plans: Prior to the issuance of the Notice to Proceed, the Contractor will be required to submit to the Owner a copy of its company safety program. See Modifications to the General Conditions, Part 5 for details.

The Owner reserves the right to reject any or all bids and to waive as an informality any irregularities in the bids received.

Date(s) of Publication: January 13, 2021

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PART 1 - GENERAL

1.1 SUMMARY OF WORK

A. General work items include, but are not limited to:

1. Metals Compliance Health and Safety Program: Activities and performance requiring compliance with this Section include the impact of painted coatings or building components containing lead, lead shielding/walls and other regulated heavy metals as defined in these Specifications. Impacts may include, but are not limited to: manual demolition, mechanical demolition, new work installation, grinding, tuck-pointing, cutting, sawing, scraping, surface preparation, surface cleaning, drilling, sanding, welding or torch-cutting. Refer to Section 01 11 01 and 02 80 00, for information regarding lead/metals-containing items in areas of the Work.

2. Managing and Handling: Conduct activities involving lead-containing paint (or metals-containing building materials) under Work of this Contract in accordance with this Section and current applicable state and federal regulations including: "Lead"; WAC 296-155-176: "Occupational Health and Environmental Control"; and 29 CFR 1926.62: "Lead Exposure in Construction" and WAC 296-841 "Airborne Contaminants" rule.

3. Lead-containing materials or paint/coating was identified on the following building components.
   - Lead lined (12%) wall system in B350 (used as dental X-Ray rooms). Assumed 300 SF of lead lined walls to be impacted or demolished. Refer to the supplemental survey report submitted by the UW Facilities Regulated Materials Management Office and project demolition plans.
   - Assumed Lead coatings on steel/metal components throughout the building and on painted pipes and equipment coatings.

4. Waste Disposal: Disposal of waste as “dangerous” according to WAC 173-303 is required for debris or items failing characterization (waste profiling requirements related to lead). Dangerous waste will be separated and segregated from the general construction/demolition debris, properly packaged and disposed through UW EH&S Environmental Program Office (EPO).

5. Initial waste stream characterization of the site indicates demolition debris will not require special handling related to lead/metals and may be disposed-off as solid waste (construction demolition and land clearing debris) using Owner approved facilities and landfill.

6. Upon waste profiling, metals-containing items and lead painted building materials must be segregated and handled as regulated waste without regard to waste stream characterization and must be disposed of as general construction debris (for landfill) and cannot be recycled. *Exception, paint on metals can be recycled as scrap metal.*

7. Monitoring: Monitoring of airborne concentrations of lead in accordance with WAC 296-155-176 and this Section (contractor’s responsibility). The intent of this Section is to reduce and maintain employee exposure to lead and surrounding environmental airborne concentrations at or below the permissible exposure limit.

1.2 RELATED WORK

A. Drawings, General Conditions, Modifications to the General Conditions, Supplemental Conditions to the General Conditions, and other Divisions apply to this Section.
1.3 SUBMITTALS

A. Submit electronic documentation of the following "Pre-Work Submittals" prior to start of work. The Work may not proceed until complete Pre-Work Submittal package has been reviewed and approved by the Environmental Consultant. Allow ten days for Owner review.

1. Metals Compliance Program: Submit a site-specific lead/metals compliance program in accordance with WAC Chapter 296-155 and this section. The plan shall be developed and implemented to provide engineering, work practice and administrative controls to reduce and maintain employee exposure to lead/metals at or below the permissible exposure limit. The plan will include at a minimum task-specific descriptions of activities; engineering (such as and not limited to negative pressure enclosure) and dust controls; personnel; procedures; method of compliance; technology used to meet compliance; air monitoring plan; detailed schedule; work practice program; administrative controls and other relevant information. Implementation of work practices not described in the Metals Compliance Plan will not be permitted until an amendment to the submittal is reviewed by the Environmental Consultant and Owner.

2. Medical Program: Submit written proof medical exam program complies with OSHA Lead Regulations 29 CFR 1910.2 and 1926.62, and WAC Chapter 296-155. Initial medical surveillance consisting of biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin levels shall be submitted for each employee occupationally exposed to lead at or above the action level.

3. Worker Training Program: Submit written proof indicating that all employees impacting lead-containing materials have received training per 29 CFR 1926.62 and WAC Chapter 296-155. Proof shall include a signature from the Contractor's Principal indicating that all employees performing lead related activities have completed such a program.


5. Waste Stream Calculations: Submit a detailed breakdown of waste stream constituents and associated volumetric calculations for review by the Environmental Consultant to determine the need for additional waste stream calculation or further waste characterization.

B. Final Submittals:

1. Project Record Documents: Provide record of metals control activities including disposition of each type of metals-containing item and products removed from the site.

2. Air Monitoring: Submit copies of all air monitoring data (including sample data sheets), chain-of-custody documentation and calibration records related to the initial exposure assessment for workers impacting metals-containing materials.

1.4 AIR MONITORING

A. Testing Laboratory: An Independent Testing Laboratory shall be retained by the Contractor for all metals air analysis. All personnel exposure monitoring analysis shall be performed in accordance with 29 CFR Part 1926.62 and WAC Chapter 296-155. The laboratory must participate in the ELPAT Program and be a member of AIHA. Air sample collection may be performed by an Industrial Hygienist or the Contractor's trained supervisor at the Contractor's option.

B. Sample Documentation: Documentation shall be kept for each filter sample procured as to worker sampled, social security number, activity, work area location, date and time taken, volume of air
drawn through filter, pump identification number and calibration. Documentation shall indicate in what areas tests were taken and shall clearly indicate the specified maximum allowable levels for each area tested. Report all data. Complete laboratory chain-of-custody records.

C. Analysis Procedures: The samples shall be collected on 37 mm filters and analyzed within 24 hours using NIOSH Analytical Method No. 7105 or 7082. The containers shall be clearly labeled with project name and Sample Number and shall become property of the Owner at work completion at the Owner's request.

D. Contractor's Sampling During Metals Related Activities:

1. Initial exposure: Personnel exposure monitoring shall be performed by the Contractor during impact of representative metals-painted building components per WAC 296-155.

2. Most Contaminated Worker: The Contractor shall determine which worker(s) in each work area is probably experiencing the most severe exposure. This is the "Most Contaminated Worker(s)". An 8-hour TWA samples shall be collected on this worker(s). Worker shall wear a personal sampling pump and the sample shall be drawn from the breathing zone of this worker.

3. Number of samples: The number of air samples collected shall be as defined in the approved Metals Compliance Program. Historical measurements per WAC 296-155 may be used to satisfy continuing exposure assessment requirements.

E. Work Area Monitoring

1. Monitoring: The Owner reserves the right to monitor Contractor's performance via air, dust wipe and TCLP samples during metals related activities, in addition to the Contractor's exposure monitoring and testing. Sampling by the Owner will not be available for use as the Contractor's Initial Exposure Assessment.

2. Quality Control

   a. Maximum allowable airborne concentrations: Contractor shall ensure that at all times airborne concentrations of metals outside lead or metals related work areas are maintained at or below the OSHA Action Level of 25 μg/m³ (for Lead), 0.5 mg/m³ (for Barium/Chromium) and 0.05 mg/m³ (for Mercury).

   b. Immediately upon being notified of concentrations exceeding the specified maximum allowable levels, the Contractor shall perform the following steps in the order presented, at no additional cost to the Owner: Stop lead/metals related activities work, identify source of high metals concentrations, develop plan with Environmental Consultant and Owner to complete metals related activities in a manner to prevent visible emissions and elevated metals levels.

1.5 SUBCONTRACTORS

A. Subcontractors employed by the Contractor shall be bound to all the work and safety standards specified. Subcontractor's personnel shall meet requirements as specified, and shall be supervised by the Contractor during performance of this work.

1.6 LIABILITY

A. The Contractor is an independent contractor and not an employee of the Owner, Architect or Environmental Consultant. The Owner and the Environmental Consultant shall have no liability to the Contractor or any third persons for Contractor's failure to faithfully perform and follow the
provisions of these Specifications and the requirements of the governing agencies. Notwithstanding the failure of the Owner or the Environmental Consultant to discover a violation by the Contractor of any of the provisions of these Specifications, or to require the Contractor to fully perform and follow any of them, such failure shall not constitute a waiver of any of the requirements of these Specifications which shall remain fully binding upon the Contractor.

PART 2 - PRODUCTS

2.1 PROTECTIVE CLOTHING AND EQUIPMENT

A. Personnel Protective Equipment and materials (not limited to negative air equipment equipped with HEPA filters, flex-ductwork for exhaust, 6-mil plastic sheeting, duct tape, rigid barriers, wood studs, etc.) for Lead/metal-related activities shall be provided per WAC 296-155.

PART 3 - EXECUTION

3.1 WORK PRACTICES

A. Restrictions:

1. Use of mechanical methods including, but not limited to power sanding, grinding, sand-blasting, etc. shall be performed within a negative pressure enclosure (NPE) pending approval of negative exposure assessment by the Owner.

B. Negative Exposure Assessment: The Contractor may waive the requirement of a negative pressure enclosure when using mechanical methods upon approval by the Environmental Consultant of data indicating a negative exposure assessment has been completed per WAC 296-155 and paragraph 1.6, Air Monitoring. The Contractor shall allow 48-hours for review of such data.

C. Housekeeping: Maintain all surfaces as free as practicable of accumulations of metals and perform clean-up and wet wipe down of work areas as necessary according to WAC 296-155-17617.

D. Work Practices:

1. Set-up Activities: Prior to impact of metals-containing painted components, Contractor shall cover the ground below the work area with 6-mil plastic sheeting or equivalent. The drop-sheeting shall extend outward a minimum of 6 feet from the location of item(s) being removed. Any tears that occur in the drop-sheeting shall be immediately repaired with duct tape or other acceptable seal. Debris shall be collected with a wet/dry vacuum to avoid escape from the drop-sheeting. Wash water shall be retained on the drop-sheeting and removed by mops or wet/dry vacuums. The residue/debris and water shall be placed in storage drums for testing prior to disposal. See paragraph 3.1-E for testing requirements.

2. Perform work impacting metals-containing items and painted components in accordance with approved metals work plan. Use procedures and equipment required to limit occupational and environmental exposure to metals when lead-containing paint is impacted. The procedures employed by the Contractor shall not create the potential for contaminating surrounding areas or materials with lead-containing dust. Dust generation shall be minimized at all times.

3. At completion of the above operations, HEPA vacuum drop-sheeting to remove any paint particles or debris and wet-wipe or mop-up plastic sheeting to remove all dust.

E. Debris Testing

1. It is recommended that the water collected with wet/dry vacuums be filtered to remove paint
and debris chips and then stored in drums for testing prior to disposal. The paint and debris chips shall be placed in a separate drum for disposal at the Contractors expense. If appropriate, no rinse water shall be discharged without testing by the Environmental Consultant.

2. Debris Testing: Representative sample of debris shall be collected for TCLP testing by the Environmental Consultant. The method/location of general debris disposal will be established by test results - less than 5 parts per million (ppm) for Lead/Chromium. See paragraph 3.1-F for disposal requirements.

F. Disposal Procedures:

1. Waste characterization of the anticipated general waste stream will be performed by the Owner as necessary. Results of such characterization will be provided to the Contractor as appropriate. The Owner anticipates that disposal of demolition debris can be performed as general construction waste and subject to Owner approved Subtitle D landfill.

2. Metals or Lead-Containing Building Materials Disposal: Any waste failing TCLP and categorized as hazardous and regulated waste will be separated and segregated from the general construction/decoration debris, packaged and disposed through UW’s Environmental Programs Office.

3. Construction debris containing-lead and regulated metals (barium): Refer to Section 01 11 01 for exceptions (recycling of metals is allowed such as steel radiators and steel door casing). Construction and demolition debris generated from the project site will be treated as construction/decoration and land clearing debris (CDL) for landfill even if TCLP test analysis for metals are below acceptable levels. CDL solid waste will be disposed of at an Owner approved Subtitle D landfill listed below:

   a. Rabanco Regional Disposal Facility in Roosevelt, Washington
   b. Eastmont Transfer Station in Seattle, Washington
   c. Cedar Hills Landfill in Maple Valley, Washington
   d. Waste Management Columbia Ridge, Landfill in Arlington, Oregon
   e. WCI Finley Butte Landfill, in Boardman, Oregon
   f. Waste Management, Greater Wenatchee Landfill, East Wenatchee, Washington

END OF SECTION
SECTION 09 65 00 - RESILIENT FLOORING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Resilient sheet flooring.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For each type of resilient flooring.
   1. Include flooring layouts, locations of seams, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.
   2. Show details of special patterns.

C. Samples: For each exposed product and for each color, texture, and pattern specified, in manufacturer's standard size, but not less than 6-by-9-inch sections.
   1. Heat-Welding Bead: Include manufacturer's standard size Samples, but not less than 9 inches long, of each color required.

D. Welded-Seam Samples: For seamless-installation technique indicated and for each resilient flooring product, color, and pattern required; with seam running lengthwise and in center of 6-by-9-inch Sample applied to a rigid backing and prepared by Installer for this Project.

1.3 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of resilient flooring to include in maintenance manuals.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are competent in techniques required by manufacturer for resilient flooring installation and seaming method indicated.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For resilient flooring, as determined by testing identical products according to ASTM E648 or NFPA 253 by a qualified testing agency.
   1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
2.2 RESILIENT SHEET FLOORING

A. Vinyl Sheet Flooring.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide the following:
      a. Thickness: 0.080 inch.
   4. Sheet Width: As standard with manufacturer.
   6. Colors and Patterns: As selected by Architect from manufacturer's full range.

2.3 INSTALLATION MATERIALS

A. Commercial-Grade Floor Stripper: Manufacturer recommended product for removing and stripping floor finishes.
   1. Basis-of-Design Product: Betco; Green Earth Floor Stripper.
   2. pH Level: Not greater than 10.0.

B. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement-based or blended hydraulic-cement-based formulation provided or approved by resilient flooring manufacturer for applications indicated.

C. Adhesives: Water-resistant type recommended by flooring and adhesive manufacturers to suit resilient flooring and substrate conditions indicated.

D. Seamless-Installation Accessories:
      a. Colors: Match flooring.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prepare substrates according to resilient flooring manufacturer's written instructions to ensure adhesion of resilient flooring.
   1. Strip existing flooring to original factory finish, removing any dirt, wax, polish, or other compounds or substances that would interfere with subsequent installation of new flooring.

B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.

C. Do not install resilient flooring until materials are the same temperature as space where they are to be installed.
   1. At least 48 hours in advance of installation, move flooring and installation materials into spaces where they will be installed.

D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient flooring.
3.2 RESILIENT SHEET FLOORING INSTALLATION

A. Comply with manufacturer's written instructions for installing resilient sheet flooring.

B. Unroll resilient sheet flooring and allow it to stabilize before cutting and fitting.

C. Lay out resilient sheet flooring as follows:
   1. Maintain uniformity of flooring direction.
   2. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches away from parallel joints in flooring substrates, including seams or joints in existing flooring.
   3. Match edges of flooring for color shading at seams.
   4. Avoid cross seams.

D. Scribe and cut resilient sheet flooring to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.

E. Extend resilient sheet flooring into toe spaces, door reveals, closets, and similar openings.

F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on resilient sheet flooring as marked on substrates. Use chalk or other nonpermanent marking device.

G. Install resilient sheet flooring on covers for telephone and electrical ducts and similar items in installation areas. Maintain overall continuity of color and pattern between pieces of flooring installed on covers and adjoining flooring. Tightly adhere flooring edges to substrates that abut covers and to cover perimeters.

H. Adhere resilient sheet flooring to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

3.3 SEAMLESS INSTALLATION

A. Heat-Welded Seams: Comply with ASTM F1516. Rout joints and heat weld with welding bead to fuse sections permanently into a seamless flooring installation. Prepare, weld, and finish seams to produce surfaces flush with adjoining flooring surfaces.

3.4 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protecting resilient flooring.

B. Perform the following operations immediately after completing resilient flooring installation:
   1. Remove adhesive and other blemishes from surfaces.
   2. Sweep and vacuum surfaces thoroughly.
   3. Damp-mop surfaces to remove marks and soil.

C. Protect resilient flooring from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.

D. Cover resilient flooring until Substantial Completion.
SECTION 09 81 00 - ACOUSTIC INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Acoustic blanket insulation.
   2. Acoustic board insulation.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.3 QUALITY ASSURANCE

A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E119 by an independent testing agency.

B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E90 and classified according to ASTM E413 by an independent testing agency.

2.2 ACOUSTIC INSULATION

A. Acoustic Blankets: ASTM C665, Type I (blankets without membrane facing) produced by combining thermosetting resins free of added urea formaldehyde with mineral fibers manufactured from glass, slag wool, or rock wool.

   1. Thickness:
      a. Partitions: As required to fill cavity.
      b. Above Suspended Ceilings: 12 inches, unless otherwise indicated.

   2. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      a. Partitions:
         1) Johns Manville; Unfaced Fiberglass Batts.
         2) Owens Corning; EcoTouch Sound Attenuation Batts.
      b. Above Suspended Ceilings:
1) Johns Manville; Unfaced Fiberglass Batts.
2) Owens Corning; EcoTouch Sonobatts.

B. Acoustic Board (AWP): ASTM C612, Type IA or IB, Category 1 or 2; Boards with a flame-spread index of 25 or less produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.
1. Thickness: 1 inches.
3. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
   a. Johns Manville; Insul-Shield White Mat Board.

2.3 INSTALLATION MATERIALS

A. Impaling Pin Adhesives: Type recommended by manufacturer to suit substrate conditions indicated.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Comply with insulation manufacturer's written instructions applicable to products and applications.

B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.

C. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.

D. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness.

E. Blanket Insulation: Install in cavities formed by framing members according to the following requirements:
   1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.
   2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
   3. Maintain 3-inch clearance of insulation around recessed lighting fixtures not rated for or protected from contact with insulation.
   4. For wall cavities where cavity heights exceed 96 inches, support unfaced blankets mechanically and support faced blankets by attaching flanges of insulation to flanges of studs.
   5. Where acoustic blankets are indicated for sound attenuation above ceilings, install acoustic blanket insulation over entire ceiling area in thicknesses indicated.

F. Acoustic Board Insulation: For vertical, exposed conditions.
1. Adhesive Attachment: In accordance with adhesive manufacturer’s recommendations for surface preparation and pattern.
2. Impaling Pin Attachment: In accordance with pin manufacturer’s recommendations for surface preparation, location and amount of pins. Pin length should be selected to ensure tight fit.

END OF SECTION
January 27, 2021

Anna Daebuble
Construction Project Manager (E S 10)
UWF: OPS: Project Delivery 1

Hello Anna,

On January 26th, 2020, Dan Schwert (Certification Number 176309, expiration date 12-24-20), an AHERA Accredited Building Inspector with the University of Washington, Regulated Materials Management Office, performed targeted sampling of requested materials in specified locations in Suite B350 in the Health Sciences Building on the University of Washington Campus. The inspection was performed under UW Work Order Number 28550, AIM WR# 774744, Phase 001. Seven (7) samples were collected to represent the suspected asbestos containing materials present. Two (2) samples were collected to represent the majority of suspect lead-containing materials present. The materials sampled were limited to the specified areas. A summary of the regulated materials is as follows:

Table 1: Bulk Asbestos Sample Results

<table>
<thead>
<tr>
<th>HSA ID, Material Description and AHERA Classification</th>
<th>Material Location</th>
<th>Lab Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>28550-ASB1: Red floor coating (M)</td>
<td>Gas Room in B-350 Suite</td>
<td>All layers: ND</td>
</tr>
<tr>
<td>28550-ASB2: White pipe dope (M)</td>
<td>Gas Room in B-350 Suite</td>
<td>ND</td>
</tr>
<tr>
<td>28550-ASB3: Fiberglass pipe insulation with white and silver wrap (M)</td>
<td>Gas Room in B-350 Suite</td>
<td>All layers: ND</td>
</tr>
<tr>
<td>28550-ASB4: Off-white cabinet door (M)</td>
<td>B-350 Suite East Hall</td>
<td>ND</td>
</tr>
<tr>
<td>28550-ASB5: Composite panel wall on the backside of dental stations (M)</td>
<td>B-350 Suite</td>
<td>All layers: ND</td>
</tr>
<tr>
<td>HSA ID, Material Description and AHERA Classification</td>
<td>Material Location</td>
<td>Lab Results</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>28550-ASB6: Off-white counter top with glue (M)</td>
<td>B-350 Suite</td>
<td>All layers: ND</td>
</tr>
<tr>
<td>28550-ASB7: Black counter top with glue (M)</td>
<td>X-Ray Room west side of B-350 Suite</td>
<td>All layers: ND</td>
</tr>
</tbody>
</table>

HSA: material that is uniform in color, texture, general appearance, and construction and application date, M: Miscellaneous material per AHERA, S: Surfacing material per AHERA, ND: Non-detect

Table 2. Paint Chip Sample Results

<table>
<thead>
<tr>
<th>Sample Number and Description</th>
<th>Material Location</th>
<th>Lab Results in PPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>28550-Pb1-01: Red floor coating</td>
<td>Gas Room in B-350 Suite</td>
<td>&lt;33</td>
</tr>
<tr>
<td>28550-Pb2-01: Lead wall lining material</td>
<td>X-Ray Room west side of B-350 Suite</td>
<td>120,000</td>
</tr>
</tbody>
</table>

<: below the reporting limit, PPM – Parts per Million

FINDINGS AND RECOMMENDATIONS:

None of the materials sampled were found to contain detectable levels of asbestos.

Should additional materials be uncovered during scheduled work activities not previously identified the Regulated Materials Management Office should be contacted for an assessment. Unidentified materials should be treated as assumed ACM (asbestos-containing material) in accordance with all applicable local, state, and federal regulations.

Asbestos-related work must be performed in compliance with Washington State worker protection and environmental protection regulations. See WAC 296-62, 296-65, and PSCAA Regulation III, Article 4 for additional information.

LEAD-CONTAINING BUILDING MATERIALS CONCLUSIONS

The gray material lining the wall that was sampled during this survey was found to contain detectable levels of lead.
If other portions of the building material may be impacted by proposed renovations the Regulated Materials Management Office should be contacted for an assessment. Other paints/coatings may contain detectable levels of lead. If this building or portions of it will be demolished and disposed of, a toxicity characteristic leachate procedure (TCLP) sample that is representative of the waste stream must be collected and analyzed per the requirements of WAC173-303. If the results of the TCLP analysis determine the waste to be a "dangerous waste" as defined by WAC 173-303, it must be disposed of accordingly. It is the University's responsibility to characterize the waste stream for lead prior to disposal.

Sincerely,

Dan Schwert
Industrial Hygienist 2
Regulated Materials Management Office
Facilities Maintenance & Construction

Plant Services Building
4515 25th Avenue NE Box 354285
Seattle, Washington 98195-4285
Cell: 206-491-6076
schwertd@uw.edu

This message is intended for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us.
Pictures and Analysis Results
Pic. 1: Red floor coating & Fiberglass pipe insulation with white and silver wrap

Pic. 2: White pipe dope
Pic. 3: Off-white cabinet door

Pic. 4: Composite panel wall on the backside of dental stations
Pic. 5: Off-white counter top with glue

Pic. 6: Black counter top with glue
Pic. 7: Lead lined wall material
### Bulk Asbestos Fibers Analysis

**By Polarized Light Microscopy**

**Client:** UW- Facilities Maintenance & Construction  
**Address:** Plant Services Building- Box 354285,  
4515 25th Ave. NE  
Seattle, WA 98105-4104  
**Attention:** Mr. Dan Schwert  
**Project Location:** HSB B-Wing B-350 WO 28550 AIM 774744.001

**Batch #: 2101643.00**  
**Client Project #:** BPO 441  
**Date Received:** 1/26/2021  
**Samples Received:** 7  
**Samples Analyzed:** 7  
**Method:** EPA/600/R-93/116

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample #: 28550-ASB1-01</th>
<th>Location: HSB B-Wing B-350 WO 28550 AIM 774744.001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1 of 2</td>
<td><strong>Description:</strong> Red soft material</td>
<td></td>
</tr>
</tbody>
</table>
Non-Fibrous Materials: | Other Fibrous Materials:% | **Asbestos Type:** % |
|              | Binder/Filler, Fine particles | None Detected | ND | None Detected ND |

| Layer 2 of 2 | **Description:** Trace amount of white crumbly material |  
Non-Fibrous Materials: | Other Fibrous Materials:% | **Asbestos Type:** % |
|              | Binder/Filler, Fine grains, Fine particles | None Detected | ND | None Detected ND |

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample #: 28550-ASB2-01</th>
<th>Location: HSB B-Wing B-350 WO 28550 AIM 774744.001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1 of 1</td>
<td><strong>Description:</strong> White soft material</td>
<td></td>
</tr>
</tbody>
</table>
Non-Fibrous Materials: | Other Fibrous Materials:% | **Asbestos Type:** % |
|              | Binder/Filler, Fine particles | Polyethylene fibers | 16% | None Detected ND |

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample #: 28550-ASB3-01</th>
<th>Location: HSB B-Wing B-350 WO 28550 AIM 774744.001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1 of 2</td>
<td><strong>Description:</strong> White fibrous mesh with paper and silver foil</td>
<td></td>
</tr>
</tbody>
</table>
Non-Fibrous Materials: | Other Fibrous Materials:% | **Asbestos Type:** % |
|              | Binder/Filler, Fine particles, Metal foil | Cellulose | 29% | None Detected ND |
|              | | Glass fibers | 14% | |
| Layer 2 of 2 | **Description:** Yellow fibrous material |  
Non-Fibrous Materials: | Other Fibrous Materials:% | **Asbestos Type:** % |
|              | Binder/Filler | Glass fibers | 98% | None Detected ND |

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample #: 28550-ASB4-01</th>
<th>Location: HSB B-Wing B-350 WO 28550 AIM 774744.001</th>
</tr>
</thead>
</table>

**Sampled by:** Client  
**Analyzed by:** Akane Yoshikawa  
**Date:** 01/27/2021

**Note:** If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
Client: UW- Facilities Maintenance & Construction  
Address: Plant Services Building- Box 354285,  
4515 25th Ave. NE  
Seattle, WA 98105-4104  
Attention: Mr. Dan Schwert  
Project Location: HSB B-Wing B-350 WO 28550 AIM 774744.001

Batch #: 2101643.00  
Client Project #: BPO 441  
Date Received: 1/26/2021  
Samples Received: 7  
Samples Analyzed: 7  
Method: EPA/600/R-93/116

### Bulk Asbestos Fibers Analysis

#### By Polarized Light Microscopy

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample #:</th>
<th>Location</th>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials</th>
<th>Other Fibrous Materials: %</th>
<th>Asbestos Type: %</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>21018430</td>
<td>28550-ASB5-01</td>
<td>HSB B-Wing B-350 WO 28550 AIM 774744.001</td>
<td>1</td>
<td>Beige compressed fibrous material with paint</td>
<td>Binder/Filler, Wood flakes, Paint</td>
<td>Cellulose 92%</td>
<td>None Detected ND</td>
<td>If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.</td>
</tr>
<tr>
<td>21018431</td>
<td>28550-ASB6-01</td>
<td>HSB B-Wing B-350 WO 28550 AIM 774744.001</td>
<td>2</td>
<td>Tan compressed fibrous material with paint</td>
<td>Binder/Filler, Fine particles, Paint</td>
<td>Cellulose 97%</td>
<td>None Detected ND</td>
<td></td>
</tr>
<tr>
<td>21018432</td>
<td>28550-ASB7-01</td>
<td>HSB B-Wing B-350 WO 28550 AIM 774744.001</td>
<td>1</td>
<td>Black compressed fibrous material with paint</td>
<td>Binder/Filler, Fine particles, Paint</td>
<td>Cellulose 34%</td>
<td>None Detected ND</td>
<td></td>
</tr>
</tbody>
</table>
**Sampled by:** Client  
**Sampled by:** Akane Yoshikawa  
**Date:** 01/27/2021

---

**Title:** Bulk Asbestos Fibers Analysis  
**Method:** EPA/600/R-93/116

---

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:%</th>
<th>Asbestos Type: %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Red soft mastic</td>
<td>Mastic/Binder, Fine particles</td>
<td>Cellulose 2%</td>
<td>None Detected ND</td>
</tr>
</tbody>
</table>

---

**Note:** If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

---

**Batch #: 2101643.00**

**Client Project #: BPO 441**

**Date Received:** 1/26/2021

**Samples Received:** 7

**Samples Analyzed:** 7

**Method:** EPA/600/R-93/116
**Company**  UW- Facilities Maintenance & Construction  
**Address**  Plant Services Building- Box 354285, 4515 25th Ave. NE  
**Project Manager**  Mr. Dan Schwert  
**Phone**  (206) 685-3357  
**Cell**  (206) 491-6076  

**NVL Batch Number**  2101643.00  
**TAT**  1 Day  
**AH**  No  
**Rush TAT**  
**Due Date**  1/27/2021  
**Time**  3:45 PM  
**Email**  schwertd@uw.edu  
**Fax**  (206) 221-7756  

**Project Name/Number:** BPO 441  
**Project Location:** HSB B-Wing B-350 WO 28550 AIM 774744.001  

**Subcategory**  PLM Bulk  
**Item Code**  ASB-02  
**EPA 600/R-93-116 Asbestos by PLM <bulk>**  

**Total Number of Samples**  7  
**Rush Samples**  

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21018426</td>
<td>28550-ASB1-01</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>21018427</td>
<td>28550-ASB2-01</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>21018428</td>
<td>28550-ASB3-01</td>
<td>A</td>
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<tr>
<td>4</td>
<td>21018429</td>
<td>28550-ASB4-01</td>
<td>A</td>
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<td>5</td>
<td>21018430</td>
<td>28550-ASB5-01</td>
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<tr>
<td>6</td>
<td>21018431</td>
<td>28550-ASB6-01</td>
<td>A</td>
</tr>
<tr>
<td>7</td>
<td>21018432</td>
<td>28550-ASB7-01</td>
<td>A</td>
</tr>
</tbody>
</table>

**Print Name**  
**Signature**  
**Company**  
**Date**  
**Time**  
Sampled by  
Relinquished by  

**Print Name**  
**Signature**  
**Company**  
**Date**  
**Time**  
Received by  
Analyzed by  
Results Called by  
Faxed  Emailed  

**Special Instructions:**

---

Date: 1/26/2021  
Time: 3:47 PM  
Entered By: Fatima Khan
**CHAIN of CUSTODY SAMPLE LOG**

**Client:** UW- Facilities Maintenance & Construction  
**Street:** Plant Services Building- Box 354285, 4515  
25th Ave, NE  
Seattle, WA 98105-4104

**Project Manager:** Mr. Dan Schwert  
**Project Location:** HSB B Wing B -350

**NVL Batch Number:** 2101643

**Client Job Number:** 7-7

**Total Samples:**
- 1 Hr  
- 6 Hrs  
- 3 Days  
- 10 Days  
- 2 Hrs  
- 4 Days  
- 4 Hrs  
- 2 Days  
- 5 Days

**Turn Around Time:** Please call for TAT less than 24 Hrs

**Phone:** (206) 685-3357  
**Fax:** (206) 221-7756  
**Cell:** (206) 491-6076

**Email address:** schwertd@uw.edu

**Asbestos Air**  
**PCM (NIOSH 7400)**  
**TEM (NIOSH 7402)**  
**TEM (AHERA)**  
**TEM (EPA Level II)**  
**Other**

**Asbestos Bulk**  
**PLM (EPA/600/R-93/116)**  
**PLM (EPA Point Count)**  
**PLM (EPA Gravimetry)**  
**TEM BULK**

**Mold/Fungus**  
**Mold Air**  
**Mold Bulk**  
**Rotometer Calibration**

**METALS**  
- Total Metals
- TCLP
- Cr 6

**Det. Limit**  
- FAA (ppm)
- ICP (ppm)
- GFAA (ppm)

**Matrix**  
- Air Filter
- Drinking water
- Dust/wipe (Area)
- Soil

**RCRA Metals**  
- All 8

**Other Metals**
- All 3
- Copper (Cu)
- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Selenium (Se)
- Silver (Ag)
- Nickel (Ni)
- Zinc (Zn)

**Condition of Package:**  
- Good
- Damaged (no spillage)
- Severe damage (spillage)

**Seq. #**  
- Lab ID  
- Client Sample Number  
- Comments (e.g: Sample are, Sample Volume, etc)  
- A/R

<table>
<thead>
<tr>
<th>Seq. #</th>
<th>Lab ID</th>
<th>Client Sample Number</th>
<th>Comments</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>28550 - AS8-01</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
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<td>28550 - AS82-01</td>
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<td>3</td>
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<td>28550 - AS83-01</td>
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<td>28580 - AA85-01</td>
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<td>28550 - AS86-01</td>
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<td>15</td>
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<td></td>
</tr>
</tbody>
</table>

**Print Below**

**Sign Below**

**Company:** UW  
**Date:** 1/26/21  
**Time:** 14:00

**Sampled by:**  
**Relinquished by:**  
**Received by:**  
**Analyzed by:**  
**Results Called by:**  
**Results Faxed by:**

**Special Instructions:** Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)  
4708 Aurora Avenue North | Seattle, WA 98103-6516
### Analysis Report

**Total Lead (Pb)**

**Batch #: 2101644.00**
- **Matrix:** Bulk
- **Method:** EPA 3051/7000B
- **Client Project #:** BPO 441
- **Date Received:** 1/26/2021
- **Samples Received:** 2
- **Samples Analyzed:** 2

**Client:** UW- Facilities Maintenance & Construction  
**Address:** Plant Services Building- Box 354285, 4515 25th Ave. NE  
Seattle, WA 98105-4104

**Attention:** Mr. Dan Schwert  
**Project Location:** WO 28550 AIM 774744-001 HSB B-Wing B-350

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample #</th>
<th>Sample Weight</th>
<th>RL in mg/Kg</th>
<th>Results in mg/Kg</th>
<th>Results in percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>21018424</td>
<td>28550-Pb1-01</td>
<td>0.3022</td>
<td>33</td>
<td>&lt;33</td>
<td>&lt;0.0033</td>
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<tr>
<td>21018425</td>
<td>28550-Pb2-01</td>
<td>0.3084</td>
<td>32</td>
<td>120000</td>
<td>12</td>
</tr>
</tbody>
</table>

---

**Sampled by:** Client  
**Analyzed by:** Shalini Patel  
**Date Analyzed:** 01/27/2021

**Note:** Method QC results are acceptable unless stated otherwise.  
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

---

**mg/Kg** = Milligrams per kilogram  
**Percent** = Milligrams per kilogram / 10000  
**RL** = Reporting Limit  
**'<'** = Below the reporting Limit

**Bench Run No:** 2021-0127-03
**Company**  UW- Facilities Maintenance & Construction  
**Address**  Plant Services Building- Box 354285, 4515 25th Ave. NE  
**Project Manager**  Mr. Dan Schwert  
**Phone**  (206) 685-3357  
**Cell**  (206) 491-6076  

**NVL Batch Number**  2101644.00  
**TAT**  1 Day  
**AH**  No  
**Rush TAT**  
**Due Date**  1/27/2021  
**Time**  3:45 PM  
**Email**  schwertd@uw.edu  
**Fax**  (206) 221-7756  

---

**Project Name/Number:**  BPO 441  
**Project Location:**  WO 28550 AIM 774744-001 HSB B-Wing B-350  

**Subcategory**  Flame AA (FAA)  
**Item Code**  FAA-02  
**Description**  EPA 7000B Lead by FAA <paint>  

**Total Number of Samples**  2  
**Rush Samples**  

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21018424</td>
<td>28550-Pb1-01</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>21018425</td>
<td>28550-Pb2-01</td>
<td>A</td>
</tr>
</tbody>
</table>

---

**Print Name**  Sampled by  
**Signature**  
**Company**  
**Date**  
**Time**  

**Print Name**  Relinquished by  
**Signature**  
**Company**  
**Date**  
**Time**  

**Office Use Only**  
**Print Name**  Received by  
**Signature**  
**Company**  
**Date**  
**Time**  
**Print Name**  Analyzed by  
**Signature**  
**Company**  
**Date**  
**Time**  
**Print Name**  Results Called by  
**Signature**  
**Company**  
**Date**  
**Time**  

**Special Instructions:**  

---

Date: 1/26/2021  
Time: 3:47 PM  
Entered By: Kelly AuVu  

---

**Page 2 of 3**
**CHAIN of CUSTODY SAMPLE LOG**

**Client:** UW- Facilities Maintenance & Construction  
**Street:** Plant Services Building- Box 354285. 4515  
25th Ave. NE  
**City:** Seattle, WA 98105-4104  

**NVL Batch Number:** 201644  
**Client Job Number:** BPO 441  
**Total Samples:**  
**Turn Around Time:**  
- 1 Hr  
- 6 Hrs  
- 3 Days  
- 10 Days  
- 2 Hrs  
- 1 Day  
- 4 Days  
- 4 Hrs  
- 2 Days  
- 5 Days  
- Please call for TAT less than 24 Hrs  

**Project Manager:** Mr. Dan Schwert  
**Project Location:** HSBC B-Wing B-350  
**Phone:** (206) 685-3357  
**Fax:** (206) 221-7756  
**Cell:** (206) 491-6076  
**Email address:** schwertd@uw.edu  

| Asbestos Air | PCM (NIOSH 7400) | TEM (NIOSH 7402) | TEM (AHRA) | TEM (EPA Level II) | Other |
| Asbestos Bulk | PLM (EPA/600/R-93/116) | PLM (EPA Point Count) | PLM (EPA Gravimetry) | TEM BULK |
| Mold/Fungus | Mold Air | Mold Bulk | Rotometer Calibration |

<table>
<thead>
<tr>
<th>METALS</th>
<th>Total Metals</th>
<th>TCLP</th>
<th>Cr 6</th>
<th>Det. Limit</th>
<th>Matrix</th>
<th>RCRA Metals</th>
<th>All 8</th>
<th>Other Metals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FFAA (ppm)</td>
<td>ICP (ppm)</td>
<td>GFAA (ppm)</td>
<td>Paint Chips in %</td>
<td>All 8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Air Filter</td>
<td>Drinking Water</td>
<td>Soil</td>
<td>Paint Chips in cm</td>
<td>Lead (Pb)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SOIL (ppm)</td>
<td>GFAA (ppm)</td>
<td>Paint Chips in cm</td>
<td>Waste Water</td>
<td>Mercury (Hg)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Types of Analysis</th>
<th>Other (Specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Condition of Package:**  
- Good  
- Damaged (no spillage)  
- Severe damage (spillage)  

<table>
<thead>
<tr>
<th>Seq. #</th>
<th>Lab ID</th>
<th>Client Sample Number</th>
<th>Comments (e.g. Sample are, Sample Volume, etc.)</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td></td>
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<tr>
<td>15</td>
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</tr>
</tbody>
</table>

**Print Below:**  
**Sign Below:**  
**Company:**  
**Date:** 1/26/23  
**Time:** 15:45

**Sampled by:** [Signature]  
**Relinquished by:** [Signature]  
**Received by:** [Signature]  
**Analyzed by:** [Signature]  
**Results Called by:** [Signature]  
**Results Faxed by:** [Signature]  

**Special Instructions:** Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

---

**Phone:** 206 547.0100 | **Fax:** 206 634.1936 | **Toll Free:** 1.888.NVL.LABS (685.5227)  
**4708 Aurora Avenue North, Seattle, WA 98103-6516**
Cable connections are made at the base of the column.

POWER REQUIREMENTS AND CABLE PULLING

<table>
<thead>
<tr>
<th>POWER REQUIREMENTS</th>
<th>PRE-PULLED FISH LINES FROM PAN TO PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>-20 Amp AC110V DEDICATED (Xray Device)</td>
<td>-LAN cable 1/2 inch diameter (Required for PANO (SP&amp;SC models))</td>
</tr>
<tr>
<td>-AC110V GFI(GFI Power Strip Ok, PC Tower)</td>
<td>DIRECT CONNECTION FROM PAN TO PC BY CAT6 IS REQUIRED</td>
</tr>
<tr>
<td>-AC110V GFI(GFI Power Strip Ok, PC Monitor)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minimum PC Requirements</th>
<th>Recommended PC Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>HP EliteDesk® 800 G1 Tower</td>
</tr>
<tr>
<td>CPU</td>
<td>Intel Core i3-4150 2C 3.5GHz 1600 3MB cache</td>
</tr>
<tr>
<td>RAM</td>
<td>1X4GB DDR3-1600 DIMM RAM DDR3 non-ECC Up to 1600 MT/s</td>
</tr>
<tr>
<td>Hard disk drive (HDD)</td>
<td>500GB SATA 7200 Primary HDD</td>
</tr>
<tr>
<td>Graphics Processing Unit</td>
<td>Integrated Intel® HD 4400 Graphics</td>
</tr>
<tr>
<td>Ethernet Interface (2)</td>
<td>Integrated Intel® I217LM Gigabit Network</td>
</tr>
<tr>
<td></td>
<td>Intel Ethernet I210-T1 PCIe x1 Gb NIC(Option)</td>
</tr>
<tr>
<td>Serial Port</td>
<td>1 (On board)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>≥ 320 Watts (94% Efficiency)</td>
</tr>
<tr>
<td>PCI Slots</td>
<td>2 PCI Express x 1 Slot</td>
</tr>
<tr>
<td></td>
<td>2 PCI Express x 16 Slot</td>
</tr>
<tr>
<td></td>
<td>1 PCI Slots</td>
</tr>
<tr>
<td>CD/DVD Drive</td>
<td>Slim SuperMulti Optical Disc Drive</td>
</tr>
<tr>
<td>Monitor</td>
<td>22“ IPS 1920x1080 screen resolution</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 7 Professional 64-Bit OS</td>
</tr>
<tr>
<td>Dimensions</td>
<td>M82 Tower 6.9”x17.4”x16.7”</td>
</tr>
</tbody>
</table>

FOR QUESTIONS PLEASE CONTACT VATECH SUPPORT @ (888)396-6872  option #2
1. Equipment should not be installed on thick carpets for stability reasons.
2. The flooring must be leveled where the device is to be installed.
3. Device should not be installed next to a room with a compressor or equipment generating large amounts of vibration.

DEVICE DIMENSIONS AND FLOORING REQUIREMENTS

**WHEN UTILIZING WALL BRACKET PLEASE CONSIDER THERE ARE 2 TYPES OF BRACKETS (Current and New types):

1. Wall bracket from back of column to wall is 16-22 cm
2. Wall backing if external typically add 3/4 inch for 1x6 or 1x8

If doing wall mount, please use the picture below as a guide for placing a backing for additional support.

***Without base, floor bolt and wall mount are both required

WALL MOUNTING
1. ITEMS NOTED FOR REMOVAL ARE INDICATED TO ESTABLISH GENERAL SCOPE OF DEMO. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND SHALL NOTIFY THE ARCHITECT PRIOR TO DEMO OF ANY ITEMS NOT INDICATED ON THE PLANS THAT MAY AFFECT THE WORK.

2. ANY ITEMS DEMOLISHED THAT ARE NOT INDICATED AS DEMOLISHED OR ARE INDICATED AS TO REMAIN ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED OR REPLACED WITH LIKE MATERIALS AND ASSEMBLIES AT NO COST TO THE OWNER.

3. EXISTING CONDITIONS ARE COMPILED FROM RECORD DRAWINGS. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, AND SHALL NOTIFY THE ARCHITECT PRIOR TO DEMOLITION OF ANY ITEMS NOT INDICATED THAT MAY AFFECT THE WORK.

4. PROVIDE TEMPORARY ENCLOSURE TO CONTAIN DUST AND DEBRIS.

5. [E] FLOORING TO REMAIN.

6. CONFIRM WITH OWNER WHICH EQUIPMENT IS TO BE SALVAGED & RETURNED TO OWNER AND WHICH EQUIPMENT IS TO BE REMOVED.

7. DEMO KEYNOTES

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>REMOVE [E] DOOR, FRAME, AND TRIM</td>
</tr>
<tr>
<td>2</td>
<td>DEMO [E] PARTITION WALL. PREP [E] FLOORING FOR NEW FINISH</td>
</tr>
<tr>
<td>3</td>
<td>DEMO [E] PARTIAL HEIGHT PARTITION WALL. PREP [E] FLOORING FOR NEW FINISH</td>
</tr>
<tr>
<td>4</td>
<td>DEMO [E] SINK</td>
</tr>
<tr>
<td>5</td>
<td>DEMO [E] WINDOW</td>
</tr>
<tr>
<td>6</td>
<td>REMOVE [E] AUTOCLAVES AND HOOD, SEE MECH</td>
</tr>
<tr>
<td>7</td>
<td>[E] MEP PIPING</td>
</tr>
<tr>
<td>8</td>
<td>DEMO [E] COUNTER/CASEWORK</td>
</tr>
<tr>
<td>9</td>
<td>SALVAGE [E] DOORS FOR REUSED</td>
</tr>
<tr>
<td>10</td>
<td>REMOVE PORTION OF EXISTING WALL FOR PLUMBING OR MECHANICAL ACCESS; COORDINATE SPECIFIC LOCATIONS &amp; EXTENTS WITH MEP</td>
</tr>
<tr>
<td>11</td>
<td>[E] MEP PIPING</td>
</tr>
<tr>
<td>12</td>
<td>DEMO [E] COUNTER/CASEWORK</td>
</tr>
</tbody>
</table>

DEMO PLAN LEGEND:
- [E] ELEMENT TO REMAIN
- [X] ELEMENT TO REMOVED

DEMO PLAN KEYNOTES:
- [E] ELEMENT TO REMAIN
- [X] ELEMENT TO REMOVED
1. Paint doors as noted, all door frames, all exposed conduit, last materials, and doors as noted. The walls and ceilings shall be guarded with plastic sheeting until the work is complete.

2. All doors shall be grouted, sanded and varnished when applicable to protect the surface. The bottom 150 mm of all doors shall be varnished to protect against any varnish leakage.

3. All [E] drywall to be patched and painted to match new construction finish. [E] perimeter radiators to be painted to match adjacent wall finish. Quantity required.

4. Where interior partition is partially demolished to provide access for MEP, Refinish wall and paint per finish schedule on A2.04. Not all locations called out on finish plan will require work; coordinate with MEP.

5. All [E] doors to remain. Refinish within suite as follows: door to be painted PNT-1, frame to be painted PNT-2.

6. The recipient agrees, to the fullest extent permitted by law, to defend, indemnify, and hold Mithun, Inc., its employees, agents, and representatives harmless from any liability or claims arising from or related to the recipient’s use of the enclosed media, whether such claims are based in contract, tort (including negligence), or otherwise.

7. Any request for providing data in a different file format(s) if such a request is made in writing by the original recipient. Such a request may be considered to be a change in services.

8. The recipient acknowledges that the enclosed media is furnished “as is” and any use of the enclosed media is at the recipient’s own risk.

9. The recipient agrees to return the enclosed media to Mithun, Inc. at any time upon request.

10. The recipient agrees, to the fullest extent permitted by law, to defend, indemnify, and hold Mithun, Inc., its employees, agents, and representatives harmless from any liability or claims arising from or related to the recipient’s use of the enclosed media, whether such claims are based in contract, tort (including negligence), or otherwise.
### 3. INSTALL ISOLATION VALVES SPECIFIED IN SECTION 221120 AND SLOPE PIPING FOR DRAINING OF SYSTEM(S).

- **Items shall be manufactured in the United States.**

**Notes:**
- Specification
- Section
- 226600
- 221300
- Acid Waste and Water System C
- Soil, Waste, System C
- Dental Air System
- ≤ 2" Type L Copper SW, PF Ball
- > 2" Type L Copper SW, PF Globe
- ≤ 140°F, ≤ 125 PSI Ball Check on Male End, Auto

### 4. PROVIDE 3" SCHEDULE 40 STEEL EXHAUST VENT PIPE.

- Size as noted on drawings.
- Where applicable, vent size shall be as noted on the drawing, half size of waste or 1-1/2", whichever is larger.

### NOTES: SPECIFICATION

- **Abbreviations**
- **References**
- 1/M9.1
- 1, 2, 3, 4

### MARK MANUFACTURER / MODEL

- **DF-M DENTAL VACUUM PUMP**
  - 1-1/2" 1-1/2" 1/2"
  - 2" O O PC PC
  - NOTE 4 DF-M

- **DF-G DENTAL CHAIR G**
  - - - - - - - - 1/2" - O O PC O
  - DF-G

- **DF-H DENTAL CHAIR H**
  - - - - - - - - 1/2" - O O PC O
  - DF-H

- **DF-D TREATMENT ROOM CONSOLE**
  - - 1-1/2" 1-1/2" 1/2" 1/2" - 1 /2" - - 1 /2" - O O PC O
  - NOTE 1 DF-D

- **DF-C T-WALL CENTRAL CONSOLE**
  - - 1-1/2" 1-1/2" 1/2" 1/2" - - 1 /2" - O O PC O
  - NOTE 1 DF-C

- **DF-K AUTO WASHER**
  - - 1-1/2" 1-1/2" 1/2" 1/2" 1/2" - - - O O PC O
  - DF-K

- **DF-A TREATMENT CONSOLE A**
  - - - - - - - - 1/2" 1/2" O O PC O
  - DF-A

- **DF-F DOUBLE TREATMENT ROOM**
  - SS-1 SINGLE SINK
  - 1-1/2" 1-1/2" - - 1/2" 1/2" - - - O PC PC PC
  - NOTE 2 SS-1

### PIPING SYSTEMS INSULATION SCHEDULE

- **COLD PLUMBING PIPING INSIDE BUILDING ENVELOPE**
  - Fiberglass
  - All sizes 1" thick
  - 2

<table>
<thead>
<tr>
<th>TYPE</th>
<th>INSTALLATION LOCATION</th>
<th>INSULATION TYPE</th>
<th>PIPE SIZE (INCHES)</th>
<th>INSULATION THICKNESS (INCHES)</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PF</td>
<td>Press Fit: NIBCO Press, VIEGA Propress, AALBERTS INDUSTRIES Apollo Press, Thermafit Industries POC, Mission Rubber Company</td>
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<tr>
<td>FL</td>
<td>Flanged: Same as pipe Mfr</td>
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<tr>
<td>BF</td>
<td>Barbed Fitting: Same as pipe Mfr</td>
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<tr>
<td>BR</td>
<td>Brazed w/SIL-FOS 15: AWS A5.8, BCuP-5 or approved alloy w/ &gt; 1000°F melting point</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>QC</td>
<td>Quick Connect Fitting: Same as pipe Mfr</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>SW</td>
<td>Sweat w/96-4 NSF solder: NIBCO, MueLLER, ElkhART</td>
<td>Uniform pitch of 1% towards drain, fixture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UC</td>
<td>Unconditioned space</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Exterior</td>
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<tr>
<td>UC</td>
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<td>E</td>
<td>Exterior</td>
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<tr>
<td>UC</td>
<td>Unconditioned space</td>
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</tr>
</tbody>
</table>
NOTE 1: GREYED OUT COMPONENTS NOT IN SCOPE.

NOTE 2: DETAILS SHOWN ON THIS SHEET ARE FROM MOST CURRENT INFORMATION AVAILABLE FROM THE MANUFACTURER REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS ON FINAL SUBMITTALS PRIOR TO INSTALLATION.
Magnuson Health Sciences Center

Loading Dock & Elevator Locations for B350 Remodel

EL 19  D Wing
3500 LBS
77" Handrail to Handrail width
52" Handrail to inside of cab depth

EL 18  B Wing
3000 LBS
74" Handrail to Handrail width
52" Handrail to inside of cab depth

EL 136  RR Wing
4000lbs
68" Handrail to Handrail width
58" Handrail to inside of cab depth

EL 53  BB Wing
4000lbs
57"Handrail to Handrail width
82" Inside cab depth
(hospital use. permission required)

*all dimensions are approximate

Project site - 3rd floor

S1 Parking
181-MM-127

Hsc Aa, B, C, D, E & F Wings
Roof Replacement Project
Warranty

Project 203452 - HSC AA-B-C-D-E-F-G-J-Wing Roof Replacement Design

ZONE:H
February 05, 2015

UW CPO
Sandy McCrae, Construction Manager
1705 NE Pacific Street
Seattle, WA 98145

RE: Project Warranty

Dear Mr. McCrae:

Howard S. Wright hereby warrants all products, supplied and installed on the above-referenced project against defects in material or workmanship for a period of one (1) year, beginning on the date of Substantial Completion.

The warranty is contingent on all products being used for their intended purpose and the proper care and maintenance of the products per the manufacturer’s specifications.

Sincerely,

Chris Martindale
Project Executive
Howard S. Wright

Cc: Service
PHOTO 1: TO ACCESS ROOF, TAKE B2 STAIR UP TO DOUBLE DOORS

PHOTO 2: ONCE ON THE ROOF, THERE IS A RAILED ENCLOSURE, AND THEN FALL PROTECTION STANCHIONS JUST OUTSIDE OF THE ENCLOSURE

PHOTO 3: ROOF ABOVE SUITE B350, FACING SOUTH